

# **Butte County**

## **2016 Regional Transportation Improvement Program (RTIP)**

**For the**

## **2016 State Transportation Improvement Program (RTIP)**

**Fiscal Years 2016/2017 – 2020/2021**  
(July 1, 2016 through June 30, 2021)

Adopted: December 10, 2015

Prepared by:



2580 Sierra Sunrise Terrace, Suite 100  
Chico, CA 95928  
530-879-2468 Fax: 530-879-2444  
[www.bcag.org](http://www.bcag.org)

# Table of Contents

	<u>Page Number</u>
<b>A. <u>Overview and Schedule</u></b>	
Section 1. Cover Letter & Executive Summary.....	1
Section 2. General Information.....	1
Section 3. Background of Regional Transportation Improvement Program....	2
Section 4. Completion of Prior RTIP Projects.....	3
Section 5. RTIP Outreach and Participation.....	5
<b>B. <u>2016 STIP Regional Funding Request</u></b>	
Section 6. 2016 STIP Regional Share and Request for Programming.....	6
Section 7. Outside Funding Sources included in RTIP.....	7
Section 8. Interregional Improvement Program Funding .....	8
Section 9. Projects Planned Within the Corridor.....	8
<b>C. <u>Relationship of RTIP to RTP/SCS and Benefits of RTIP</u></b>	
Section 10. Regional Level Performance Evaluation.....	9
Section 11. Regional and Statewide Benefits of RTIP.....	13
<b>D. <u>Performance and Effectiveness of RTIP</u></b>	
Section 12. Evaluation of the Cost Effectiveness of the RTIP.....	14
Section 13. Project Specific Evaluation.....	15
<b>E. <u>Detailed Project Information</u></b>	
Section 14. Overview of Projects Programmed with Regional Funding.....	17
<b>F. <u>Appendices</u></b>	
Section 15. Projects Programming Request Forms - Included	
Section 16. Board Resolution or Board Documentation of RTIP Approval - Included	
Section 17. Documentation on Coordination with Caltrans District (Optional) – Not Included	
Section 18. Detailed Project Programming Summary Table - Included	
Section 19. Alternative Delivery Methods (Optional) – Not Included	
Section 20. Additional Appendices (Optional) – Included: STIP Fund Estimate	
Section 21. Additional Appendices (Optional) – Included: SR 70 – <i>Completing the Vision</i>	

# **A. OVERVIEW AND SCHEDULE**

## **Section 1. Cover Letter and Executive Summary**

The BCAG Board of Directors adopted this RTIP at their December 10, 2015 Board meeting. This 2016 RTIP reflects a local, regional, and state commitment to deliver practical and needed projects in Butte County. Two State Route 70 projects are proposed, one carryover local bridge project and PPM funds. All projects are carryover from the 2014 STIP Cycle. The State Route 70 Corridor continues to be BCAG’s top priority for the region. The urbanized area of Chico is the largest urbanized area in the state not yet served by a continuous four lane facility. SR 70 “Segment 1” project would construct our next passing lane project from Ophir Rd to Palermo Rd near the city of Oroville. SR 70 “Segment 2” builds upon Segment 1 however, it is only being proposed for preliminary engineering and right-of-way at this time with the rest of the components to be funded in a future STIP cycle. Our third project, the Midway over Butte Creek Bridge Replacement project addresses two functionally obsolete bridges that are to be replaced by one new bridge utilizing STIP funds as the local match. This document and supporting documentation has been posted on BCAG’s website at <http://www.bcag.org/Planning/RTIP/index.html>.

<b>Project:</b>	<b>Description</b>	<b>RIP Funds</b>	<b>Other Funds</b>	<b>Total</b>
		<b>(\$ - millions)</b>		
SR 70 Segment 1	from Ophir to Palermo Rd. Widen from 2 to 4 lanes	\$13.1	\$13.1 (IIP)	\$26.2
SR 70 Segment 2	Cox Lane to Palermo Rd Widen from 2 to 4 lanes	\$1.5	\$1.5 (IIP)	\$3
Midway over Butte Creek Bridge	Construct new 1600 foot bridge	\$1.499	\$13.991 (HBP)	\$15.49
PPM	Plan, Program and Monitor	\$ 0.202		\$0.202
<b>Totals</b>		<b>\$16,301</b>	<b>\$28.591</b>	<b>\$ 44.892</b>

## **Section 2. General Information**

- **Regional Agency Name**  
Butte County Association of Governments
- **Agency website links for Regional Transportation Improvement Program (RTIP) and Regional Transportation Plan (RTP):**

**Regional Agency Website Link:** <http://www.www.bcag.org>

**RTIP document link:** <http://www.bcag.org/Planning/RTIP/index.html>

**RTP link:** <http://www.bcag.org/Planning/MTP--SCS/index.html>

- **Executive Director or Chief Executive Officer Contact Information**

Name Jon Clark  
Title Executive Director  
Email [jclark@bcag.org](mailto:jclark@bcag.org)  
Telephone 530-879-2468

- **RTIP Staff Contact Information**

Name Ivan Garcia Title Programming Manager  
Address 2580 Sierra Sunrise Terrace, Suite 100  
City/State Chico, CA  
Zip Code 95928  
Email [igarcia@bcag.org](mailto:igarcia@bcag.org)  
Telephone 530-879-2468 Fax 530-879-2444

- **California Transportation Commission (CTC) Staff Contact Information**

Name Laurel Janssen Title Deputy Director  
Address 1120 N Street  
City/State Sacramento, CA  
Zip Code 95814  
Email [laurel.janssen@dot.ca.gov](mailto:laurel.janssen@dot.ca.gov)  
Telephone 916-654-4245 Fax 916-653-2134

**Section 3. Background of Regional Transportation Improvement Program (RTIP)**

A. What is the Regional Transportation Improvement Program?

The Regional Transportation Improvement Program (RTIP) is a program of highway, local road, transit and active transportation projects that a region plans to fund with State and Federal revenue programmed by the California Transportation Commission in the State Transportation Improvement Program (STIP). The RTIP is developed biennially by the regions and is due to the Commission by December 15 of every odd numbered year. The program of projects in the RTIP is a subset of projects in the Regional Transportation Plan (RTP), a federally mandated master transportation plan which guides a region's transportation investments over a 20 to 25 year period. The RTP is based on all reasonably anticipated funding, including federal, state and local sources. Updated every 4 to 5 years, the RTP is developed through an extensive public participation process in the region and reflects the unique mobility, sustainability, and air quality needs of each region.

B. Regional Agency's Historical and Current Approach to developing the RTIP

Provide narrative on your historical and current approach to developing the RTIP in the text field below:

BCAG has prepared the 2016 RTIP in consultation with each of the cities and county public works staff, Caltrans and the general public. BCAG has followed the adopted STIP guidelines

for the preparation of this document. Caltrans District 3 has been instrumental in providing the necessary project programming request (project information) for jointly funded projects located on the state highway system. All project programming request sheets for each recommended project are included as Appendix 1 and have been submitted electronically. The 2016 RTIP is a continuation of the uncompleted projects from the 2014 RTIP. There are no new projects for this cycle.

#### **Section 4. Completion of Prior RTIP Projects (Required per Section 68)**

Provide narrative on projects completed between the adoption of the RTIP and the adoption of the previous RTIP in text field below as is required per Section 68 of the STIP Guidelines:

The prior 2014 RTIP/STIP programmed 5 projects for the region:

**SR 70 Corridor Passing Lane (Segment 1)**. To date, BCAG has been working with Caltrans District 3 to complete the environmental and design of the project. BCAG used its available Congressional earmark funds to complete the environmental and design components. The purpose of this project is to reduce travel delay by extending the existing passing lanes to provide additional passing opportunities in both directions. This Segment 1 on SR 70 is in the vicinity from Palermo Rd to Ophir Rd., just south of the City of Oroville. The project will reduce congestion and improve the safety conditions once completed. Currently, the environmental component is underway and nearing completion. This project is ongoing and therefore not complete.

**SR 70 Corridor Passing Lane (Segment 2)**. Segment 2 continues BCAG's work effort to bring 4 lanes to the region by completing this portion on SR 70 from Cox Lane to just south of Palermo Rd (termini of Segment 1). Due to financial constraints, the project schedule is farther out. However, BCAG is currently completing the environmental component utilizing federal demonstration funds (Congressional earmark) for this work effort concurrent with Segment 1. Design and right of way are recommended for an allocation in the 2017/18 fiscal year. This project has the same benefits in improving the congestion, reducing delay and addressing the safety concerns associated with a rural 2 lane highway. This project is ongoing and therefore not complete.

**Butte Regional Transit Operations and Maintenance Facility**. This project is currently under design and scheduled for construction in the spring of 2016 with STIP PTA funds. The design component is expected to be completed by January 2016 with construction immediately following. This project is ongoing and therefore not complete.

**Neal Road Bike Lanes near Paradise & Cohasset Rd Project** - Phase 1 is from SR 99 to 4.7 Miles eastward towards the Town of Paradise. The project will construct new class 2 bike lanes along a popular cycling route. Safety signage will be installed along Cohasset Rd. Environmental and design is complete and construction is scheduled to be allocated in the Spring of 2016. This project is ongoing and therefore not complete.

**Midway Bridge across Butte Creek Project**. This project is still under design and is scheduled to be constructed in the 2016/17 fiscal year utilizing \$1.499 million in STIP funds as

leverage for \$13.9 million in federal Highway Bridge Program (HBP) funding. This project replaces two functionally obsolete bridges to provide safe access. This project is ongoing and therefore not complete.

**Planning, Programming and Monitoring.** BCAG continues to use its PPM funds towards allowable expenses to support its overall work program and budget.

Project Name and Location	Description	Summary of Improvements/Benefits
SR 70 Passing Lanes (Segment 1)	On SR 70 from 0.1 mile south of Palermo Road to just north of Ophir Rd/Pacific Heights intersection. Widen from 2 lanes to 4. <u>Project is currently underway in the environmental component.</u>	The environmental component is currently underway. Construction is scheduled for FY 18/19. Benefits include increased roadway capacity, reduced congestion, and improved travel flow. Bicycle safety will also be improved.
SR 70 Passing Lanes (Segment 2)	On SR 70 from Cox Lane to 0.1 mile south of Palermo Road. Widen from 2 lanes to 4. Funds design and right of way. <u>Project is currently underway in the environmental component.</u>	The environmental component is currently underway. Design and right of way are proposed for the 16 STIP. Benefits include increased roadway capacity, reduced congestion, improved travel flow. Bicycle safety will also be improved.
Butte Regional Transit Operations and Maintenance Facility	In the City of Chico the project is located at 326 Huss Lane. Construct administrative offices, transit and Maintenance Facility and Yard (Transit Facility). Project is expected to be under construction for the second and final phase by May 2016.	Benefits include meeting current consolidated transit system capacity needs and future transit growth.
Neal Road and Cohasset Road Bike Project	On Neal Rd. from Oro-Chico Hwy to the Skyway & unincorporated portion of Cohasset Rd from Chico Limits to the Cohasset School. Construct Class 2 bike lanes on Neal Rd with safety signs on Cohasset	Benefits include improved traffic safety & circulation and promote intermodal transportation by constructing Class 2 bike lanes along Neal Rd. Also enhances "rideability" and safety of both Neal Rd and Cohasset Rd for bicyclists
Midway Bridge Replacement across Butte Creek	On Midway (old SR 99) approximately 0.2 miles south of White Ave to approximately 0.7 miles south of White Ave. spanning Butte Creek and Butte Creek Overflow. This project replaces 2 bridge structures. (HBP project with STIP funds leveraging). Construction is scheduled for Spring of	These bridges are not safe and have low sufficiency ratings. They have been determined to be "Structurally Deficient" by Caltrans Structures Maintenance and

	2017.	Investigations. Benefits are safety.
Planning, Programming & Monitoring	Planning, Programming and Monitoring activities to support BCAG's Overall Work Program and Budget related to the STIP	Benefits include the support of BCAG's planning, programming and monitoring activities required

## **Section 5. RTIP Outreach and Participation**

### **A. RTIP Development and Approval Schedule**

<b>Action</b>	<b>Date</b>
CTC adopts Fund Estimate and Guidelines	August 27, 2015
Caltrans identifies State Highway Needs	September 15, 2015
Draft 2016 RTIP made available for public review	October 15, 2015
Caltrans submits draft ITIP	October 15, 2015
CTC ITIP Hearing, North	October 28, 2015
CTC ITIP Hearing, South	November 4, 2015
BCAG adopts 2016 RTIP	December 10, 2015
BCAG submit RTIP to CTC	December 15, 2015
Caltrans submits ITIP to CTC	December 15, 2015
CTC STIP Hearing Date – North Hearing	January 21, 2016
CTC STIP Hearing Date – South Hearing	January 26, 2016
CTC publishes staff recommendations	February 19, 2016
CTC Adopts 2016 STIP	March 16-17, 2016

### **B. Public Participation/Project Selection Process**

BCAG has prepared the 2016 RTIP in consultation with each of the cities and county public works staff, Caltrans and the general public. BCAG has followed the adopted STIP guidelines for the preparation of this document. The STIP fund estimate and development of the 2016 RTIP was presented to the BCAG Transportation Advisory Committee on September 3, 2015. A public notice concerning the development of the 2016 RTIP and availability of the draft document was placed in the local newspaper and posted on-line. All projects in the 2016 RTIP are the same projects identified in the 2014 STIP with the exception of the Neal Road Bike Lanes project which is scheduled to be voted for construction in the spring of 2016. In the absence of any new STIP funding programming capacity and because all of the projects in this new 2016 RTIP are the same, a project selection process was not necessary. At the request from the Commission, and as the result of insufficient funding in the STIP, BCAG slightly delayed the SR 70 Corridor projects.

### **C. Consultation with Caltrans District (Required per Section 17)**

Caltrans District: 03

Caltrans District 3 was a partner in developing the 2016 RTIP. BCAG's two regionally significant projects are located on State Route 70. As such, thorough communication was necessary to

ensure both agencies were in agreement with state highway projects nominated in this RTIP. Caltrans is also a member of BCAG's Transportation Advisory Committee where the RTIP development process is presented. BCAG, Caltrans District 3 and Caltrans HQ communicated via in person meetings, email and phone conferences as needed. In addition, staff made available a complete draft to the District for review and comment prior to adoption.

## **B. 2016 STIP Regional Funding Request**

### **Section 6. 2016 STIP Regional Share and Request for Programming**

**Per the STIP Guidelines, the 2016 Fund Estimate indicates that the STIP is already fully programmed for the entire 5 years of the 2016 STIP. This is due primarily to the decrease in the price based excise tax. Project currently programmed in the STIP will need to be reprogrammed into later years. The CTC will not be providing regional shares for the 2016 STIP.**

A. 2016 Regional Fund Share Per 2016 STIP Fund Estimate

**Not applicable for the 2016 STIP Period due to the lack of funding available for programming.**

B. Summary of Requested Programming – **No new funding is requested**. Existing funding is as follows:

<b>Project Name and Location</b>	<b>Project Description</b>	<b>Requested RIP Amount</b>
SR 70 Passing Lanes (Segment 1)	On SR 70 from 0.1 mile south of Palermo Road to just north of Ophir Rd/Pacific Heights intersection. Widen from 2 lanes to 4. Funds construction.	\$13.1 million in RIP ( <i>existing programming</i> ) \$13.1 million IIP ( <i>existing programming</i> )
SR 70 Passing Lanes (Segment 2)	On SR 70 from Cox Lane to 0.1 mile south of Palermo Road. Widen from 2 lanes to 4. Funds design and right of way.	\$ 1.5 million in RIP ( <i>existing programming</i> ) \$ 1.5 million in IIP ( <i>existing programming</i> )
Midway Bridges across Butte Creek	Replaces deficient bridges with one long 1600' bridge. Funding is for construction	\$1.499 million RIP (existing programming) \$13.9 million in HBP funds
PPM	Planning, Programming and Monitoring activities to support BCAG's Overall Work Program and Budget.	\$202,000 in RIP (existing programming)

**Section 7. Overview of other funding included with delivery of Regional Improvement Program (RIP) projects.**

Provide narrative on other funding included with the delivery of projects included in your RTIP. Insert information in the table below.

SR 70 Corridor Projects - BCAG has a long history of partnering with Caltrans on the SR 70 Corridor. Excluding federal demonstration funds, BCAG and Caltrans have jointly funded these projects at fifty percent each. For Segment 1, BCAG and District 3 are requesting \$11.2 million in ITIP funds. For Segment 2, BCAG and District 3 are requesting \$1.5 million in ITIP funds. ITIP funds represents 50% of the funds.

Midway Bridge across Butte Creek Project – The County Public Works Department has secured \$13.991 million in federal Highway Bridge Program (HBP) funding. As such, \$1.499 in state-only STIP funds has been requested to serve as the match requirement.

Proposed 2016 RTIP	Total RTIP	Other Funding					Total Project Cost
		ITIP	RSTP/CMAQ	Fund Source 1	Fund Source 2	Fund Source 3	
SR 70 Passing Lane Project (Segment 1)	13,100	13,100					26,200
SR 70 Passing Lane Project (Segment 2)	1,500	1,500					3,000
Midway Bridges across Butte Creek, replace bridge (HBP)	1,499			13,991 HBP			15,490
Planning, Programming & Monitoring	202						202
							-
							-
<b>Totals</b>	<b>16,301</b>	<b>14,600</b>	<b>-</b>	<b>13,991</b>	<b>-</b>	<b>-</b>	<b>44,892</b>

**Notes:** All projects are carryover from the 2014 STIP with no changes in funding.

## **Section 8. Interregional Improvement Program (ITIP) Funding – OPTIONAL**

The purpose of the Interregional Transportation Improvement Program (ITIP) is to improve interregional mobility for people and goods in the State of California. As an interregional program the ITIP is focused on increasing the throughput for highway and rail corridors of strategic importance outside the urbanized areas of the state. A sound transportation network between and connecting urbanized areas ports and borders is vital to the state's economic vitality. The ITIP is prepared in accordance with Government Code Section 14526, Streets and Highways Code Section 164 and the STIP Guidelines. The ITIP is a five-year program managed by Caltrans and funded with 25% of new STIP revenues in each cycle. Developed in cooperation with regional transportation planning agencies to ensure an integrated transportation program, the ITIP promotes the goal of improving interregional mobility and connectivity across California.

If requesting ITIP funding, provide narrative on your request in the text field below.

BCAG and Caltrans District 3 are recommending ITIP funds for the SR 70 Passing Lane Projects – Segment 1 and Segment 2. Segment 1 is recommended for construction funding with \$11.2 million each in RIP and IIP funding. Segment 1 is being pushed one fiscal year out to FY 18/19. Segment 2 is recommended at \$1.5 million each in RIP and IIP funding for a total of \$3 million to complete design and right of way. BCAG and Caltrans have funded the SR 70 Corridor traditionally at 50% with the exception of prior earmark funds secured by BCAG. Federal earmark funds are currently being used for both Segment 1 and 2 for the environmental components. Any future SR 70 earmark funds secured will continue to be applied to the total project costs.

## **Section 9. Projects Planned Within the Corridor (Required per Section 20)**

Provide a description of the project's impact on other projects planned or underway within the corridor as required per Section 20 of the STIP Guidelines.

In 1988 the CTC placed the SR 70 and 99 Corridor on their "Special Studies List" asking for a corridor study to be prepared to determine which of the two routes should be the focus for future highway investments to provide an expressway for ultimate conversion to freeway to connect Sacramento and Chico. This corridor study would then serve as a basis for future transportation investments by Caltrans and the MPOs in the corridor. The SR 70 and 99 Corridor Study was prepared by BCAG, SACOG and Caltrans. It was adopted by BCAG and SACOG in 1990. Since adoption of the corridor study, over \$700 million in transportation investments have been made to projects along the corridor. Appendix F, Section 21 "Completing the Vision" highlights the investments made to date for the SR 70 & 99 Corridor.

The SR 70 Passing Lane Projects, both Segment 1 and Segment 2 work towards this long term goal of providing for a minimum 4 lane highway system between Sacramento and Chico. Segment 1 is scheduled for construction which is just south of Oroville. Segment 2 begins at the termini of Segment 1 and works southward for a 3.2 mile section. Financial constraint has

been the reason to a segment approach in widening the corridor. These projects are critical in BCAG's efforts to bring a continuous 4 lane highway system to the region.

The 3<sup>rd</sup> project is the Midway over Butte Creek bridge replacement project which leverages \$1.499 million in state only STIP funds for \$13.991 million federal Highway Bridge Program (HBP) funds. The Midway is a regionally significant route which directly connects the community of Durham to Chico.

## **C. Relationship of RTIP to RTP/SCS/APS and Benefits of RTIP**

### **Section 10. Regional Level Performance Evaluation (per Section 19A of the guidelines)**

Provide an evaluation of system performance and how your RTIP furthers the goals of the region's RTP, and if applicable, your Sustainable Communities Strategy as required per Section 19A of the STIP Guidelines. Each region that is a Metropolitan Planning Organization (MPO) or within an MPO shall include an evaluation of overall (RTP level) performance using, as a baseline, the region's existing monitored data. To the extent relevant data and tools area available, the performance measures listed in Table B1 below may be reported.

Regions outside a MPO shall include any of the measures listed in Table B1 (below) that the region currently monitors. A region outside a MPO (or a small MPO) may request, and Caltrans shall provide, data on these measures relative to the state transportation system in that region.

As an alternative, a region outside a MPO (**or a small MPO**) may use the Performance Monitoring Indicators identified in the Rural Counties Task Force's Rural and Small Urban Transportation Planning study dated June 3, 2015. These include: Total Accident Cost, Total Transit Operating Cost per Revenue Mile, Total Distressed Lane Miles, and Land Use Efficiency (total developed land in acres per population).

The evaluation of overall performance shall include a qualitative or quantitative assessment of how effective the RTIP or the ITIP is in addressing or achieving the goals, objectives and standards which correspond to the relevant horizon years within the region's RTP or Caltrans ITSP that covers the 5-year STIP period. Caltrans' evaluation of the ITIP shall also address ITIP consistency with the RTPs.

In addition, each region with an adopted sustainable communities strategy (SCS) or Alternate Planning Scenario (APS) shall include a discussion of how the RTIP relates to its SCS or APS. This will include a quantitative or qualitative assessment of how the RTIP will facilitate implementation of the SCS or APS and also identify any challenges the region is facing in implementing its SCS or APS. In a region served by a multi-county transportation planning organization, the report shall address the portion of the SCS or APS relevant to that region. As part of this discussion, each region shall identify any proposed or current STIP projects that are exempt from SB 375.

BCAG's SCS is based upon a financially constrained regional transportation network which services the transportation needs of the region by investing in highways, local streets and roads, transit, and non-motorized transportation. The forecasted regional transportation network, when

combined with the lane use forecasts in the MTP/SCS, contributes to meeting the region’s greenhouse gas reduction targets. The SR 70 Passing Lane Projects (Segment 1 and Segment 2) as well as the Midway Bridge across Butte Creek Projects are all specifically identified in the current adopted MTP/SCS.

The proposed 2016 RTIP furthers the goals of the current MTP/SCS by working towards providing a safe and efficient system.

### Regional Level Performance Indicators & Measures

Goal	Indicator/Measure	Current Performance	Projected Impact of Constrained Plan	Data Source*
		Base Year (2010)	Year 2035	
Safety and Public Health	Fatalities per Vehicle Miles Traveled (VMT)	1 per 77 million VMT	N/A	SWITRS
	Fatalities per Passenger Mile by Transit Mode Share	0 per 8.2 million	0 per 12.1 million <sup>1</sup>	SWITRS
	Percentage of Trips by Pedestrian and Bicycle Mode Share	4.63% Pedestrian	5.59% Pedestrian	TDF Model
		1.98% Bicycle	2.39% Bicycle	
Mobility and Accessibility	Average Peak Period Travel Time	10.1 minutes	10.5 minutes	TDF Model
	Percentage of Population within 2 miles of State Highway	81%	83%	LU Model / GIS
	Percentage of Population within 1/4 mile of Existing Transit Route	59%	49%	LU Model / GIS
Reliability	Congested Vehicle Miles of Travel	31,850	333,550	TDF Model
Productivity	Average Peak Period Vehicle Trips	91,540 AM	133,500 AM	TDF Model
		169,800 PM	249,110 PM	
	Transit Passengers per Vehicle Revenue Mile	1.7	2.5	B-Line
System Preservation	Total Number of Distressed Lane Miles by Jurisdiction	Unincorporated = 482	N/A	Caltrans & Local
		City of Oroville = 6		
		City of Gridley = 13.5		
		City of Biggs = 10		
		Town of Paradise = 56		
		City of Chico = 94.45		
	Percentage of Distressed Lane Miles by Jurisdiction	Unincorporated = 23%	N/A	Caltrans & Local
		City of Oroville = 6.5%		
		City of Gridley = 50%		
		City of Biggs = 45%		
		Town of Paradise = 56%		
		City of Chico = 39%		

## Regional Level Performance Indicators & Measures (Cont.)

Goal	Indicator/Measure	Current Performance	Projected Impact of Constrained Plan	Data Source*
		Base Year (2010)	Year 2035	
Environmental Stewardship	Air Quality Conformity (non-attainment pollutants)	See Appendix 1 of BCAG's 2012 RTP	See Appendix 1 of BCAG's 2012 RTP	Air Quality Conformity Determination
	Per Capita Vehicle Miles of Travel <sup>3</sup>	20.15	20.85	TDF Model
	Per Capita Acres of Developed Land	0.27	0.25	LU Model / GIS
	Acres of Prime Farmland Avoided	237,272 acres	231,541 acres	LU Model / GIS
	Percentage of Development Occurring within Butte Regional Conservation Plan - Urban Permit Areas	68% Residential and 86% Non-Residential	74% Residential and 87% Non-Residential	LU Model / GIS
Social Equity	Percentage of Higher Density Low Income Housing <sup>2</sup> within 1/4 mile of Existing Transit Route	93%	82%	LU Model / GIS
	Percentage of Higher Density Low Income Housing <sup>2</sup>	25%	26%	LU Model / GIS
	Percentage of Minority Area <sup>4</sup> Population within 1/4 mile of Existing Transit Route	83%	75%	LU Model / GIS

**Footnotes:**

<sup>1</sup> calculated as a ratio of the 2010 fatalities by passenger mile transit mode share and transit passengers per vehicle revenue mile

<sup>2</sup> multi-family housing is used in determining percentage of higher density low income housing

<sup>3</sup> VMT includes all trips within county from all vehicle types

<sup>4</sup> Minority Areas are defined as 2010 Census Block Groups where 40 percent or more of the population is Asian Pacific Islander, African American, Hispanic, Native American or other Non-White ethnic group, based on 2010 Census data

**\*Data Source**

SWITRS - California Highway Patrol Statewide Integrated Traffic Records System

TDF Model - BCAG's Regional Transportation Model

LU Model - BCAG's Regional Land Use Allocation Model

B-Line - Butte Regional Transit

GIS - BCAG's Regional Geographical Information System

## **Reasons for Using Selected Measures**

**Safety/Health** - The safety of the regional transportation system is a key measure used to evaluate fatalities, injury, and property loss of system users. Given the available datasets at the time of preparing the 2012 RTP/SCS, these indicators allow for an accurate measure of safety and for motorized vehicles, transit, pedestrian, and bike. Health is also evaluated by measuring mode share for bike and pedestrian usage.

**Mobility/Accessibility** - Mobility refers to the ease or difficulty of traveling from an origin to a destination. Accessibility is defined as the opportunity and ease of reaching desired locations. As mobility increases, accessibility tends to improve. Given the available datasets at the time of preparing the 2012 RTP/SCS, these indicators allow for an accurate measure of mobility and accessibility utilizing travel times and accessibility to the state highway system and transit.

**Reliability** – Reliability refers to the consistency or dependability of travel times and is a measure that compares expectations with experience. Given the available datasets at the time of preparing the 2012 RTP/SCS, this indicator allows for an accurate measure of reliability of motorized vehicle travel utilizing congested VMT. Congested VMT has been determined as all VMT which equals or exceeds a volume/capacity ratio of 1.

**Productivity** - Productivity is defined as the utilization of transportation system capacity. For roadways, capacity is defined as the maximum number of vehicles that a roadway can accommodate. Given the available datasets at the time of preparing the 2012 RTP/SCS, these indicators allow for an accurate measure of productivity of motorized vehicle travel utilizing peak period vehicle trips and transit utilizing passengers per vehicle revenue mile.

**System Preservation** - System preservation refers to maintaining the roadway network at a desired or agreed upon level. Given the available datasets at the time of preparing the 2012 RTP/SCS, this indicator allows for an accurate measure of system preservation by determining the extent of currently distressed lane miles maintained by each local jurisdiction.

**Environmental Stewardship** – Environmental stewardship strives to protect and enhance the built and natural environments of the region. Given the available datasets at the time of preparing the 2012 RTP/SCS, these indicators allow for an accurate measure of environmental stewardship of as they relate to vehicle travel, habitat conservation, air quality, prime farmland avoidance, and the development of land.

**Social Equity** – Equitable distribution of the benefits and burdens of the plan on the economically and socially disadvantaged. Given the available datasets at the time of preparing the 2012 RTP/SCS, these indicators allow for an accurate measure of social equity and the relationship of low income housing and minority areas and proximity to transit.

## **Section 11. Regional and Statewide Benefits of RTIP**

Provide qualitative narrative on the Regional and Statewide benefits of RTIP in text field below.

The 2016 RTIP has identified a total of 3 projects, two of which are on the state highway system and the 3<sup>rd</sup> is a bridge replacement project. The regional and statewide benefits of BCAG's RTIP are significant. Both of the SR 70 projects address serious issues for the region; economic benefits and safety. All projects are specifically identified in the current adopted Regional Transportation Plan / Sustainable Communities Strategy and have demonstrated regional air quality conformity.

As a rural agricultural county with rural two lane highways, expanding the restricted two-lane highway system has been the top priority for over 20 years. The unquantifiable benefits include the region's ability to attempt to stimulate growth and bring jobs to an economically distressed region. Attracting businesses to the South Oroville area of Butte County has been a challenge as a result of inadequate basic infrastructure. The area is also subject to fog during the winter months which make head-on collisions a real factor. During the agricultural harvest season, the Butte County highways experience significantly higher truck traffic. As such, the conflict with through traffic and slower moving truck traffic and agricultural equipment is a real safety concern. Therefore, expanding the SR 70 Corridor with both "Segment 1" and "Segment 2" projects is significant to those commuters who use the facility, including transit and those travelling through the region. In addition, during harvest season, it is not uncommon to see people walk and bike along the highway. With the improved shoulder width of the highway projects, indirect benefits will result in a safer passage for those individuals required to walk or bike along the area. The 3<sup>rd</sup> project, the Midway bridge replacement is currently a deficient bridge. The new bridge replacement with no new added capacity means a safe bridge will soon be coming. The bridge is located on the Midway which is the main route connecting the community of Durham with Chico which is a heavy agriculture area.

The benefits quantified in the RTIP are the result of extensive regional traffic modeling conducted as part of the current Regional Transportation Plan/Sustainable Communities Strategy for Butte County. These same measures are being presented to ensure consistency between the plan and the program.

## D. Performance and Effectiveness of RTIP

### Section 12. Evaluation of Cost Effectiveness of RTIP (Required per Section 19)

Per Section 19B and Appendices B of the STIP Guidelines, regions shall, if appropriate and to the extent necessary data and tools are available, use the performance measures in Table B2 below to evaluate cost-effectiveness of projects proposed in the STIP on a regional level.

<b>Table B2 Evaluation Cost-Effectiveness Indicators and Measures</b>			
<b>Goal</b>	<b>Indicator/Measure</b>	<b>Current Level of Performance (Baseline)</b>	<b>Projected Performance Improvement (indicate timeframe)</b>
Congestion Reduction	Reduce Vehicle Miles Traveled	31850	333,550
	Reduce Percent of congested VMT (at or below 35 mph)		
	Change in commute mode share (travel to work or school)	4.63% Pedestrian 1.98% Bike	5.59% Ped (2035) 2.39% Bike
Infrastructure Condition	Reduce percent of distressed state highway lane-miles	661.95	Not Available
	Improve Pavement Condition Index (local streets and roads)		
	Reduce percent of highway bridge lane-miles in need of replacement or rehabilitation (sufficiency rating of 80 or below)		
	Reduce percent of transit assets that have surpassed the FTA useful life period		
System Reliability	Reduce Highway Buffer Index (the time cushion added to the average commute travel times to ensure on-time arrival).		
Safety	Reduce fatalities and serious injuries per capita		
	Reduce fatalities and serious injuries per VMT	1 per 77 million (SWITRS)	
Economic Vitality	Increase percent of housing and jobs within 0.5 miles of transit stops with frequent transit service		
	Reduce mean commute travel time (to work or school)	10.1 minutes	10.5 minutes (2035)
Environmental Sustainability	Change in acres of agricultural land	237,272 acres	231,541 acres (2035)
	CO <sub>2</sub> emissions reduction per capita	1862 tons (2010 base)	2% reduction (2035)

<b>Table B2(a) Evaluation Rural Specific Cost Effectiveness Indicators and Measures</b>			
<b>Goal</b>	<b>Indicator/Measure</b>	<b>Current System Performance (Baseline)</b>	<b>Projected Performance (indicate timeframe)</b>
Congestion/ Delay/ VMT	Change in VMT	20.15 per capita VMT	20.85 (2035)
	Change in peak volumes		
	Change in delay		
Mode Share/Split	Change in Mode Share/Split	92.75 % auto (2010)	91.38 % (2035)
Safety	Change in accident cost per capita and accident cost per VMT		
Transit	Change in cost per revenue mile		
Infrastructure Condition	Change percent of distressed lane-miles		
	Change Pavement Condition Index (local streets and roads)		
Land Use	Change in percentage of developed land/population. Reduction in farmland conversion.		

The above referenced goals and indicator/measures provided are reflective of the 2012 Regional Transportation Plan/Sustainable Communities Strategy and of the traffic model/data available at that time. BCAG is currently updating the 2012 RTP/SCS with a new 2016 document. Provided the evaluation indicators and measures do not change, BCAG is currently attempting capture as much as realistically feasible as part of the regional traffic model update process. The 2016 RTP/SCS is scheduled for adoption in December 2016.

### **Section 13. Project Specific Evaluation (Required per Section 19)**

Each RTIP shall include a project specific benefit evaluation for each new project proposed that addresses the changes to the built environment, including, but limited to the items listed on page 9 of the STIP Guidelines. A project level evaluation shall be submitted for projects for which construction is proposed if:

- The total amount of existing and proposed STIP for right-of-way and/or construction of the project is \$15 million or greater, or
- The total project cost is \$50 million or greater.

The project level benefit evaluation shall include a Caltrans generated benefit/cost estimate, including life cycle costs for projects proposed in the ITIP. For the RTIP, the regions may choose between the Caltrans estimate and their own estimate (explain why the Caltrans

estimate was not used). The project level benefit evaluation must explain how the project is consistent with Executive Order B-30-15 (Climate Change).

The STIP Guidelines state that this evaluation should be included in the PPRs (Section 15 of the RTIP Template).

SR 70 Segment 1 Project Evaluation:

District: **D-03** EA:   
 PROJECT: **BUT-70 Passing Lane PM 8.8/11.6** PFPNO:

INVESTMENT ANALYSIS		SUMMARY RESULTS	
Life-Cycle Costs (mil. \$)	\$27.7		
Life-Cycle Benefits (mil. \$)	\$42.0		
Net Present Value (mil. \$)	\$14.3		
Benefit / Cost Ratio:	1.5		
Rate of Return on Investment:	7.4%		
Payback Period:	10 years		
<b>ITEMIZED BENEFITS (mil. \$)</b>		<b>Average Annual</b>	<b>Total Over 20 Years</b>
Travel Time Savings	\$0.7	\$14.5	
Veh. Op. Cost Savings	-\$0.4	-\$8.7	
Accident Cost Savings	\$1.9	\$37.2	
Emission Cost Savings	-\$0.1	-\$1.0	
<b>TOTAL BENEFITS</b>	<b>\$2.1</b>	<b>\$42.0</b>	
Person-Hours of Time Saved	100,451	2,009,020	
CO <sub>2</sub> Emissions Saved (tons)	-2,467	-49,341	
CO <sub>2</sub> Emissions Saved (mil. \$)	-\$0.0	-\$0.9	

**Should benefit-cost results include:**

1) Induced Travel? (y/n)  Default = Y

2) Vehicle Operating Costs? (y/n)  Default = Y

3) Accident Costs? (y/n)  Default = Y

4) Vehicle Emissions? (y/n)  Default = Y  
 includes value for CO<sub>2e</sub>

Segment 2 Project Evaluation:

District: **D-03** EA:   
 PROJECT: **BUT-70 Passing Lane PM 5.67/8.8** PFPNO:

INVESTMENT ANALYSIS		SUMMARY RESULTS	
Life-Cycle Costs (mil. \$)	\$24.6		
Life-Cycle Benefits (mil. \$)	\$65.7		
Net Present Value (mil. \$)	\$41.1		
Benefit / Cost Ratio:	2.7		
Rate of Return on Investment:	11.4%		
Payback Period:	6 years		
<b>ITEMIZED BENEFITS (mil. \$)</b>		<b>Average Annual</b>	<b>Total Over 20 Years</b>
Travel Time Savings	\$0.7	\$14.8	
Veh. Op. Cost Savings	-\$0.4	-\$8.9	
Accident Cost Savings	\$3.0	\$60.8	
Emission Cost Savings	-\$0.1	-\$1.1	
<b>TOTAL BENEFITS</b>	<b>\$3.3</b>	<b>\$65.7</b>	
Person-Hours of Time Saved	110,499	2,209,974	
CO <sub>2</sub> Emissions Saved (tons)	-2,714	-54,276	
CO <sub>2</sub> Emissions Saved (mil. \$)	-\$0.0	-\$0.9	

**Should benefit-cost results include:**

1) Induced Travel? (y/n)  Default = Y

2) Vehicle Operating Costs? (y/n)  Default = Y

3) Accident Costs? (y/n)  Default = Y

4) Vehicle Emissions? (y/n)  Default = Y  
 includes value for CO<sub>2e</sub>

## **E. Detailed Project Information**

### **Section 14. Overview of projects programmed with RIP funding**

Provide summary of projects programmed with RIP funding including maps in the text field below as required per Section 19 of the STIP Guidelines.

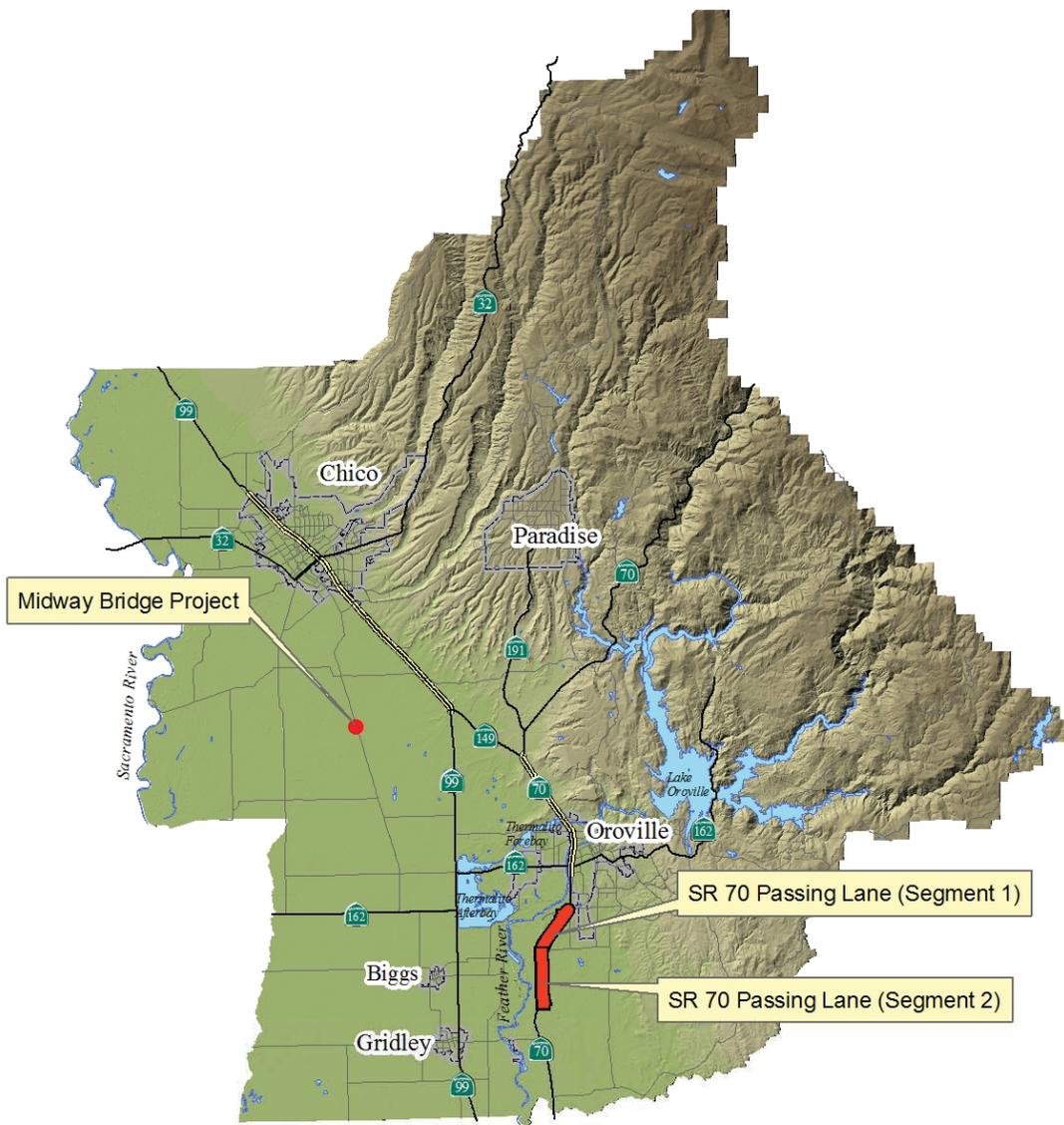
The 2016 RTIP is recommending the following projects for the region:

**SR 70 Corridor Passing Lane (Segment 1)**. This Segment 1 on SR 70 is 0.1 mile south of Palermo Road to just north of Ophir Rd/Pacific Heights intersection just south of the City of Oroville. The post miles are 8.8 to 11.8. The purpose of this project is to reduce travel delay by extending the existing passing lanes to provide additional passing opportunities in both directions. This project expands the capacity from 2 lanes to 4 lanes. The project will reduce congestion and improve the safety conditions once completed. Currently, the design and right of way components are underway. BCAG is currently using its federal earmark funds to complete the environmental component. \$13.1 million in RIP and \$13.1 million in IIP funds is requested to complete this project. Construction for the project was pushed out one fiscal year from 2017/18 to 2018/2019. This project is a carryover from the 2014 STIP cycle.

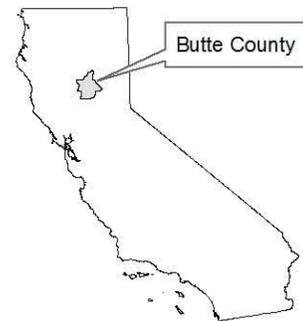
**SR 70 Corridor Passing Lane (Segment 2)**. Segment 2 continues BCAG's work effort to bring 4 lanes to the region by completing this portion on SR 70 from Cox Lane to just south of Palermo Rd (termini of Segment 1). This project expands the capacity from 2 lanes to 4 lanes. Due to financial constraints, the project schedule is farther out. The environmental component is being completed in conjunction with Segment 1 utilizing federal earmark funds. Design and right of way are recommended for an allocation in the 2017/18 fiscal year for \$1.5 million in RIP and \$1.5 million in IIP. This project has the same benefits in improving the congestion, reducing delay and addressing the safety concerns associated with a rural 2 lane highway. This project is a carryover from the 2014 STIP cycle.

**Midway Bridge across Butte Creek Project**. This project is located between the City of Chico and the Durham community. The scope of the project is to replace two functionally obsolete bridges with one large one to provide safe access. This project is currently under design. This project is scheduled for a construction allocation in the 2016/17 fiscal year utilizing \$1.499 million in STIP funds as leverage for \$13.9 million in federal Highway Bridge Program (HBP) funding. This project is a carryover from the 2014 STIP cycle.

**Planning, Programming and Monitoring**. BCAG continues to use its PPM funds towards allowable expenses to support its overall work program and budget. \$202,000 is This project is a carryover from the 2014 STIP cycle.



Butte County 2016  
STIP Project Locations



## **F. Appendices**

**Section 15. Projects Programming Request Forms**– Included

**Section 16. Board Resolution or Board Documentation of approval of 2016 RTIP** - Included

**Section 17. Documentation of Coordination with Caltrans District (Optional)** –Included

**Section 18. Detailed Project Programming Summary Table (Optional)** - Included

**Section 19. Alternative Delivery Methods (Optional)** – Not Included

**Section 20. Add any additional appendices below.** – Included: STIP Fund Estimate

**Section 21. Add any additional appendices below.** – Included: SR 70 - *Completing the Vision*